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EXAMINER	
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2416	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/748,290	BROWN ET AL.	
	Examiner	Art Unit	
	ABDULLAH RIYAMI	2416	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 October 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17,19 and 20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17,19 and 20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1. This is in response to an amendment/response filed on 10/22/2008.

2. Claims 1-17 and 19-20 remain pending in the application.

3. Claim 18 has been canceled.

Response to Arguments

Applicant arguments filed on10/22/2008 has been fully considered but they are not persuasive.

- Applicant argues that the prior art fails to teach "appending to each byte in said first data stream a data type identification (DTID) ....thereby creating a technology independent data stream having a first bit rate" as recited in independent claim 1.
- Applicant argues that the prior art fails to teach "a transmit data type identification (DTID) circuit coupled to an output of a first transmission medium for appending a DTID to each byte in an original data stream, ... thereby generating a technology independent data stream at first bit rate that represents the original data stream from said first transmission medium," as recited in independent claim 8.
- Applicant argues that the prior art fails to teach "means for appending a data type identification to each byte in said first data stream, ... thereby creating a technology independent data stream from said first data stream, said technology

independent data stream having a first bit rate," as recited in independent claim 16.

- Applicant argues that the prior art (Shippy) fails to teach “appending to each byte in said first data stream a data type identification (DTID) .... thereby creating a technology independent data stream having a first bit rate" as recited in independent claim 1; a communications reconciliation sub-layer including "a transmit data type identification (DTID) circuit coupled to an output of a first transmission medium for appending a DTID to each byte in an original data stream, ... thereby generating a technology independent data stream at first bit rate that represents the original data stream from said first transmission medium," as recited in independent claim 8; or a communications sub-layer including "means for appending a data type identification to each byte in said first data stream, ... thereby creating a technology independent data stream from said first data stream, said technology independent data stream having a first bit rate," as recited in independent claim 16.

Examiner respectfully disagrees with Applicant characterization of the prior art.

- Smith (US 6813651 B1) does teach of appending to each byte (i.e. a byte is an ordered collection of bits, there is no standard defining the amount of bits a byte must contain) in said first data stream a data type identification (DTID) ....thereby creating a technology independent data stream having a first bit rate as recited in

independent claim 1. Notice in column 6, lines 21-26, checksum padding units for error detection and correction are added to the outgoing data and also notice in column 7, lines 40-42, data padding is used to make up for the difference in speeds between 1394 link and 802.3 Ethernet. Also notice in column 7, lines 24-40, table 1, preamble encoding to indicate the speed of the link is transmitted first, as shown in table 2, so there are three ways in which data identification is encoded to bytes, through checksum padding, data padding and preamble encoding. Smith also discloses technology independent stream (see column 2, lines 46-48, for speed matching different rates of the link (S100, S200, S400, S800)).

- Smith (US 6813651 B1) does teach of a transmit data type identification (DTID) circuit (see figure 5, interface device 102) coupled to an output of a first transmission medium for appending a DTID to each byte (i.e. a byte is an ordered collection of bits, there is no standard defining the amount of bits a byte must contain) in an original data stream, ... thereby generating a technology independent data stream at first bit rate that represents the original data stream from said first transmission medium, as recited in independent claim 8. Notice in column 6, lines 21-26, checksum padding units for error detection and correction are added to the outgoing data and also notice in column 7, lines 40-42, data padding is used to make up for the difference in speeds between 1394 link and 802.3 Ethernet. Also notice in column 7, lines 24-40, table 1, preamble encoding to indicate the speed of the link is transmitted first, as shown in table 2, so there

are three ways in which data identification is encoded to bytes, through checksum padding, data padding and preamble encoding. Smith also discloses technology independent stream (see column 2, lines 46-48, for speed matching different rates of the link (S100, S200, S400, S800)).

- Smith (US 6813651 B1) does teach of means for appending a data type identification to each byte in said first data stream (i.e. a byte is an ordered collection of bits, there is no standard defining the amount of bits a byte must contain), ... thereby creating a technology independent data stream from said first data stream, said technology independent data stream having a first bit rate, as recited in independent claim 16. Notice in column 6, lines 21-26, checksum padding units for error detection and correction are added to the outgoing data and also notice in column 7, lines 40-42, data padding is used to make up for the difference in speeds between 1394 link and 802.3 Ethernet. Also notice in column 7, lines 24-40, table 1, preamble encoding to indicate the speed of the link is transmitted first, as shown in table 2, so there are three ways in which data identification is encoded to bytes, through checksum padding, data padding and preamble encoding. Smith also discloses technology independent stream (see column 2, lines 46-48, for speed matching different rates of the link (S100, S200, S400, S800)). Smith also discloses identification of the class of data associated with the byte (see column 7, lines 23-40, the preamble byte identifies the link speed such as 100Mbps, 200Mps, 400Mbps, 800Mbps, link speed is considered as a class).

- Shippy (US 2005/0254645 A1) does teach of “appending to each byte in said first data stream a data type identification (DTID) .... thereby creating a technology independent data stream having a first bit rate" as recited in independent claim 1; Notice in figure 6a, there are multiple headers and payload in the stream, see also paragraph 54, lines 1-10, within the encrypted data stream, each block of data may be for a different device, for example MPEG, audio and video data may be interleaved within encrypted data streams. Another interpretation could also be the transmission of the of EMI bits within the data disclosing the protection status (class) as described in paragraph 46, lines 5-10. Another interpretation could also be as MPEG splitter splitting and separating video from audio as disclosed in paragraph 48 and figure 4, MPEG decoder 435. Paragraph 55 and figure 6b, discloses and elementary stream header 608, a flag 609 (identifier), and a tag 10 (identifier), the tag including identifier for the stream and source datum for enabling encryption and decryption for safeguarding the system. Another interpretation could be as described in paragraph 76, lines 1-7, PCX tag 610, TSID 612, PCX flag 609 of the data stream. Another interpretation could be as described in paragraph 84, lines 1-7, the copy control information (CCI) which allows content owners to assign varying levels of priority.
- Shippy (US 2005/0254645 A1) does teach of a communications reconciliation sub-layer including "a transmit data type identification (DTID) circuit coupled to an output of a first transmission medium for appending a DTID to each byte in an original data stream, ... thereby generating a technology independent data

stream at first bit rate that represents the original data stream from said first transmission medium," as recited in independent claim 8. Notice in figure 6a, there are multiple headers and payload in the stream, see also paragraph 54, lines 1-10, within the encrypted data stream, each block of data may be for a different device, for example MPEG, audio and video data may be interleaved within encrypted data streams. Another interpretation could also be the transmission of the of EMI bits within the data disclosing the protection status (class) as described in paragraph 46, lines 5-10. Another interpretation could also be as MPEG splitter splitting and separating video from audio as disclosed in paragraph 48 and figure 4, MPEG decoder 435. Paragraph 55 and figure 6b, discloses and elementary stream header 608, a flag 609 (identifier), and a tag 10 (identifier), the tag including identifier for the stream and source datum for enabling encryption and decryption for safeguarding the system. Another interpretation could be as described in paragraph 76, lines 1-7, PCX tag 610, TSID 612, PCX flag 609 of the data stream. Another interpretation could be as described in paragraph 84, lines 1-7, the copy control information (CCI) which allows content owners to assign varying levels of priority.

- Shippy (US 2005/0254645 A1) does teach of a communications sub-layer including "means for appending a data type identification to each byte in said first data stream, ... thereby creating a technology independent data stream from said first data stream, said technology independent data stream having a first bit rate," as recited in independent claim 16. Notice in figure 6a, there are multiple headers

and payload in the stream, see also paragraph 54, lines 1-10, within the encrypted data stream, each block of data may be for a different device, for example MPEG, audio and video data may be interleaved within encrypted data streams. Another interpretation could also be the transmission of the of EMI bits within the data disclosing the protection status (class) as described in paragraph 46, lines 5-10. Another interpretation could also be as MPEG splitter splitting and separating video from audio as disclosed in paragraph 48 and figure 4, MPEG decoder 435. Paragraph 55 and figure 6b, discloses and elementary stream header 608, a flag 609 (identifier), and a tag 10 (identifier), the tag including identifier for the stream and source datum for enabling encryption and decryption for safeguarding the system. Another interpretation could be as described in paragraph 76, lines 1-7, PCX tag 610, TSID 612, PCX flag 609 of the data stream. Another interpretation could be as described in paragraph 84, lines 1-7, the copy control information (CCI) which allows content owners to assign varying levels of priority.

Claim Rejections - 35 USC § 103

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1, 3-8, 11-14, 1617, and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al. (US 6813651 B1) in view of Shippy et al. (US 2005/0254645).

In claim 1, Smith et al. teaches of a method for transmitting data (see column 2, lines 15-54), comprising:

(a) receiving a first data stream (see column 6, lines 21-30, signals to and from the 1394 link, and figure 5, interface device102, phy 202 and padding 204) from a first physical transmission medium (see 1394 link, column 6, lines 21-24 and figure 5,

block 102) using a first communications standard (see 1394 link, column 6, lines 21-24);

(b) appending (see checksum padding, column 6, lines 21-30) to each byte in the first data stream a data type identification (DTID) (see checksum padding unit, column 6, lines 21-30, notice in column 7, lines 24-40, table 1, preamble encoding to indicate the speed of the link is transmitted first, as shown in table 2, so there are three ways in which data identification is encoded to bytes, through checksum padding, data padding and preamble encoding), thereby creating a technology independent data stream (see column 5, lines 40-44, different link speeds) having a first bit rate (see column 5, lines 40-44);

(c) matching (see column 5, lines 40-44) the first bit rate to a second bit rate (see column 5, lines 40-44) that corresponds to a second communications standard (see column 5, lines 31-37); and

(e) transmitting the technology independent data stream (see column 5, lines 40-44) over a second physical transmission medium (see column 5, lines 31-37) using the second communications standard (see column 5, lines 31-37 and figure 5, block 208).

Smith et al. does not expressly disclose appending to each byte a data type identification, wherein the DTID identifies a class of data associated with the byte.

Shippy et al. discloses appending to each byte a data type identification, wherein the DTID identifies a class of data associated with the byte (see paragraph 54, lines 1-10, within the encrypted data stream, each block of data may be for a different

device, for example MPEG, audio and video data may be interleaved within encrypted data streams, paragraph 55 and figure 6b, discloses and elementary stream header 608, a flag 609 (identifier), and a tag 10 (identifier), the tag including identifier for the stream and source datum for enabling encryption and decryption for safeguarding the system. Another interpretation could be as described in paragraph 76, lines 1-7, PCX tag 610, TSID 612, PCX flag 609 of the data stream).

Smith et al. and Shippy et al. are analogous art since they are from the same field of endeavor of data transmission over an IEEE 1394 bus.

At the time of the invention it would have been obvious to one of ordinary skill in the art to use Shippy et al.'s teaching of appending to each byte a data type identification, wherein the DTID identifies a class of data associated with the byte (see paragraph 54, lines 1-10, within the encrypted data stream, each block of data may be for a different device, for example MPEG, audio and video data may be interleaved within encrypted data streams, paragraph 55 and figure 6b, discloses and elementary stream header 608, a flag 609 (identifier), and a tag 10 (identifier), the tag including identifier for the stream and source datum for enabling encryption and decryption for safeguarding the system. Another interpretation could be as described in paragraph 76, lines 1-7, PCX tag 610, TSID 612, PCX flag 609 of the data stream) in Smith et al. data stream transmission system (see figure 5).

The motivation to combine would have been to have a method and device wherein encryption techniques are used to safeguard the transfer of data streams

between devices leading to greater protection of data (see paragraph 42, lines 1-5, Shippy).

In claims 3 and 4, Smith et al. teaches these limitations, see response to arguments.

In claim 5, Smith et al. teaches of a method for transmitting data (see column 2, lines 15-54), wherein step (e) comprises transmitting the technology independent data stream (see column 5, lines 40-44) over the transmission medium (see column 5, lines 31-37 and figure 5, block 208) using IEEE 802.3 1000BASE-T standards (see column 5, lines 31-37 and figure 5, block 208).

In claim 6, Smith et al. teaches of a method for transmitting data (see column 2, lines 15-54), wherein step (e) comprises transmitting category five unshielded twisted pair (UTP) wiring (see column 2, line 28).

In claim 7, Smith et al. teaches of a method for transmitting data (see column 2, lines 15-54), further comprising:

(f) receiving (see column 6, lines 21-30, signals to and from the 1394 link, and figure 5, interface device102, phy 202 and padding 204) the technology independent data stream (see column 5, lines 40-44) at the second bit rate (see column 6 lines 27-30);

(g) matching (see column 5, lines 40-44 and column 6, lines 21-24) the second bit rate to the first bit rate (see column 5, lines 40-44 and column 6, lines 21-24 and figure 5, block 212);

(h) restoring (see column 6, lines 27-30) the first data stream by removing the DTID

(see checksum stripping unit, column 6, lines 27-30 and figure 5, block 212) from each byte of the technology independent data stream (see checksum stripping unit, column 6, lines 27-30 and figure 5, block 212); and

(i) receiving (see column 6, lines 27-30) the first data stream into a third transmission medium (see figure 5, transmission between blocks 212 and 202) using the first communications standard (see figure 5, transmission between blocks 212 and 202).

In claim 8, Smith et al. teaches of a communications reconciliation sub-layer (see figure 5, block 102), comprising:

a transmit data type identification (DTID) circuit (see checksum padding, column 6, lines 21-30 and figure 5, block 204) coupled to an output (see figure 5, block 202) of a first transmission medium (see 1394 link, column 6, lines 21-24 and figure 5, block 102) for appending a DTID to each byte (notice in column 7, lines 24-40, table 1, preamble encoding to indicate the speed of the link is transmitted first, as shown in table 2, so there are three ways in which data identification is encoded to bytes, through checksum padding, data padding and preamble encoding) in an original data stream thereby generating a technology independent data stream (see column 5, lines 40-44, different link speeds) at first bit rate (see column 5, lines 40-44) that represents an original data stream (see figure 5, form block 202 to 204) from the first transmission medium (see 1394 link, see column 6, lines 21-30, signals to and from the 1394 link, and figure 5, interface device102, phy 202 and padding 204);

a transmit first-in-first-out (FIFO) buffer (see column 6, lines 31-40) coupled to an output of the transmit DTID (see figure 5, blocks 204, 206, 210, and 212) and an

input of a second transmission medium (see figure 5, blocks 204, 206, 210, and 212), the transmit FIFO buffer for matching (see column 6, lines 31-40) the first bit rate to a second bit rate (see column 5, lines 40-44 and column 6, lines 21-24) used by the second transmission medium (see column 5, lines 31-37 and figure 5, block 208);

a receive FIFO buffer (see column 6, lines 34-40) coupled to an output (see column 6, lines 34-40) of the second transmission medium, the receive FIFO buffer (see column 6, lines 34-40) for matching (see column 6, lines 34-40) the second bit rate to the first bit rate (see column 5, lines 40-44 and column 6, lines 34-40); and a receive DTID circuit (see figure 5, block 212) coupled to an output of the receive FIFO buffer (see column 6, lines 34-40) for restoring (see checksum stripping unit, column 6, lines 27-30 and figure 5, block 212) the original data stream from the technology independent data stream (see column 5, lines 40-44, different link speeds).

Smith et al. does not expressly disclose a data identification circuit appending to each byte a data type identification, wherein the DTID identifies a class of data associated with the byte.

Shippy et al. discloses a data identification circuit appending to each byte a data type identification, wherein the DTID identifies a class of data associated with the byte (see paragraph 54, lines 1-10, within the encrypted data stream, each block of data may be for a different device, for example MPEG, audio and video data may be interleaved within encrypted data streams, paragraph 55 and figure 6b, discloses

and elementary stream header 608, a flag 609 (identifier), and a tag 10 (identifier), the tag including identifier for the stream and source datum for enabling encryption and decryption for safeguarding the system. Another interpretation could be as described in paragraph 76, lines 1-7, PCX tag 610, TSID 612, PCX flag 609 of the data stream).

Smith et al. and Shippy et al. are analogous art since they are from the same field of endeavor of data transmission over an IEEE 1394 bus.

At the time of the invention it would have been obvious to one of ordinary skill in the art to use Shippy et al.'s teaching of using a data identification circuit appending to each byte a data type identification, wherein the DTID identifies a class of data associated with the byte (see paragraph 54, lines 1-10, within the encrypted data stream, each block of data may be for a different device, for example MPEG, audio and video data may be interleaved within encrypted data streams, paragraph 55 and figure 6b, discloses and elementary stream header 608, a flag 609 (identifier), and a tag 10 (identifier), the tag including identifier for the stream and source datum for enabling encryption and decryption for safeguarding the system. Another interpretation could be as described in paragraph 76, lines 1-7, PCX tag 610, TSID 612, PCX flag 609 of the data stream) in Smith et al. data stream transmission system (see figure 5).

The motivation to combine would have been to have a method and device wherein encryption techniques are used to safeguard the transfer of data streams

between devices leading to greater protection of data (see paragraph 42, lines 1-5, Shippy).

In claim 11, Smith et al. teaches of a communications reconciliation sub-layer (see figure 5, block 102), wherein the first transmission medium (see 1394 link, column 6, lines 21-24 and figure 5, block 102) is an IEEE 1394b data bus (see column 3, line 51 and line 55).

In claim 12, Smith et al. teaches of a communications reconciliation sub-layer (see figure 5, block 102), wherein the original data stream (see column 6, lines 21-30) comprises unencoded, unscrambled 1394b data (see column 6, lines 21-30) from a physical sub-layer of the IEEE 1394b data bus (see column 3, line 51 and line 55).

In claim 13, Smith et al. teaches of a communications reconciliation sub-layer (see figure 5, block 102), wherein the unencoded, unscrambled 1394b data (see column 6, lines 21-30) is tapped from a beta mode function circuit (see checksum padding, column 6, lines 21-30 and figure 5, block 204) of the IEEE 1394b data bus (see column 3, line 51 and line 55).

In claim 14, Smith et al. teaches of a communications reconciliation sub-layer (see figure 5, block 102), wherein the second transmission medium (see column 5, lines 31-37) is an IEEE 802.3 1000BASE-T data bus (see column 5, lines 31-37, ethernet).

In claim 16, Smith et al. teaches of a communications sub-layer (see figure 5, interface device 102) for transmitting data formatted according to a first communications standard (see column 6, lines 21-30 and figure 5, blocks 102, 202 and 204) over a physical medium (see column 5, lines 31-37 and figure 5, block 208) designed for data formatted according to a second communications standard (see column 5, lines 31-37 and figure 5, block 208), comprising:

means for receiving a first data stream (see column 6, lines 21-30 and figure 5, blocks 102, 202 and 204) formatted according to the first communication standard (see column 6, lines 21-30 and figure 5, blocks 102, 202 and 204);

means for appending a DTID to each byte (notice in column 7, lines 24-40, table 1, preamble encoding to indicate the speed of the link is transmitted first, as shown in table 2, so there are three ways in which data identification is encoded to bytes, through checksum padding, data padding and preamble encoding) in an original data stream thereby creating (see column 5, lines 40-44) a technology independent data stream (see column 5, lines 40-44, different link speeds) from the first data stream (see column 6, lines 21-30, signals to and from the 1394 link, and figure 5, interface device102, phy 202 and padding 204), the technology independent data stream having a first bit rate (see column 5, lines 40-44);

means for matching the first bit rate to a second bit rate (see column 5, lines 40-44) corresponding to the second communications standard (see column 5, lines 31-37);

and means for transmitting the technology independent data stream (see column 5,

lines 40-44) over the physical medium (see column 5, lines 31-37) according to the second communications standard (see column 5, lines 31-37, 1394 and ethernet).

Smith et al. does not expressly disclose a means for appending to each byte a data type identification, wherein the DTID identifies a class of data associated with the byte.

Shippy et al. discloses a data identification circuit appending to each byte a data type identification, wherein the DTID identifies a class of data associated with the byte (see paragraph 54, lines 1-10, within the encrypted data stream, each block of data may be for a different device, for example MPEG, audio and video data may be interleaved within encrypted data streams, paragraph 55 and figure 6b, discloses and elementary stream header 608, a flag 609 (identifier), and a tag 10 (identifier), the tag including identifier for the stream and source datum for enabling encryption and decryption for safeguarding the system. Another interpretation could be as described in paragraph 76, lines 1-7, PCX tag 610, TSID 612, PCX flag 609 of the data stream).

Smith et al. and Shippy et al. are analogous art since they are from the same field of endeavor of data transmission over an IEEE 1394 bus.

At the time of the invention it would have been obvious to one of ordinary skill in the art to use Shippy et al.'s teaching of using a data identification circuit appending to each byte a data type identification, wherein the DTID identifies a class of data associated with the byte (see paragraph 54, lines 1-10, within the encrypted data stream, each block of data may be for a different device, for example MPEG, audio

and video data may be interleaved within encrypted data streams, paragraph 55 and figure 6b, discloses and elementary stream header 608, a flag 609 (identifier), and a tag 10 (identifier), the tag including identifier for the stream and source datum for enabling encryption and decryption for safeguarding the system. Another interpretation could be as described in paragraph 76, lines 1-7, PCX tag 610, TSID 612, PCX flag 609 of the data stream) in Smith et al. data stream transmission system (see figure 5).

The motivation to combine would have been to have a method and device wherein encryption techniques are used to safeguard the transfer of data streams between devices leading to greater protection of data (see paragraph 42, lines 1-5, Shippy).

In claim 17, Smith et al. teaches of a communications sub-layer (see figure 5, block 102) further comprising means for receiving (see column 6, lines 27-30 and figure 5, block 208) the technology independent data stream (see column 5, lines 40-44); means for matching the second bit to the first bit rate (see column 5, lines 40-44 and column 6, lines 21-24 and figure 5, block 212); means for restoring the first data stream (see checksum stripping unit, column 6, lines 27-30 and figure 5, block 212) from the technology independent data stream (see column 5, lines 40-44).

In claim 19, Smith et al. teaches of a communications sub-layer (see figure 5, block 102), wherein the restoring (see checksum stripping unit, column 6, lines 27-30 and figure 5, block 212) means comprises removing (see checksum stripping

unit, column 6, lines 27-30 and figure 5, block 212) the data type identification from each byte of the technology data stream (see column 5, lines 40-44).

In claim 20, Smith et al. teaches of a communications sub-layer (see figure 5, block 102), wherein the matching (see column 6, lines 31-40) means uses a first-in-first-out buffer (see column 6, lines 31-40).

8. Claims 2 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al. (US 6813651 B1) in view of Shippy et al. (US 2005/0254645) further in view of Cheung (US 2004/0039866).

In claim 2 Smith et al. teaches of a method for transmitting data (see column 2, lines 15-54), wherein step (c) comprises:

(i) receiving at a first first-in-first-out (FIFO) buffer (see column 6, lines 31-40) the technology independent data stream (see column 5, lines 40-44) at the first bit rate (see column 5, lines 40-44);

Smith et al. does not expressly disclose steps (ii) when the first FIFO buffer is full, transmitting the technology independent data stream at the second bit rate according to step (e); and (iii) when the FIFO buffer is empty, stopping the transmitting, thereby allowing the FIFO buffer to refill with the technology independent data stream.

Cheung et al. discloses a FIFO buffer (see figure 3, block 308 and figure 5, blocks 504 and 508) that can be configured to transmit when full (see paragraph 49, lines 1-10) and receive/refill when empty (see paragraph 49, lines 1-10).

Smith et al. and Cheung are analogous art because they are from the same fields of endeavor of using a buffer to facilitate the throughput of data between components.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use Cheung 's FIFO buffer that transmits/receives when full or empty in Smith's et al. interface device.

The motivation to combine would have been to facilitate and match the throughput of transmission data rates between devices and other components.

In claim 10, Smith et al. teaches of a communications reconciliation sub-layer (see figure 5, block 102), comprising:

a transmit FIFO buffer for matching (see column 6, lines 31-40), but does not expressly disclose that the transmit FIFO buffer is coupled to a pointer for indicating a status of the transmit FIFO buffer.

Cheung et al. discloses a FIFO buffer (see paragraph 49, lines 1-10,figure 3, block 308 and figure 5, blocks 504 and 508) that is coupled to a pointer (see paragraph 45, line 5-10) for indicating a status (see paragraph 45, line 5-10) of the transmit FIFO buffer.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use Cheung 's FIFO buffer that transmits/receives when full or empty in Smith's et al. interface device.

The motivation to combine would have been to facilitate and match the throughput of transmission data rates between devices and other components.

Claims 9 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al. (US 6813651 B1) in view of Shippy et al. (US 2005/0254645).

In claim 9, Smith et al. teaches of a communications reconciliation sub-layer (see figure 5, block 102), comprising:

a transmit FIFO buffer for matching (see column 6, lines 31-40), but does not expressly disclose that the transmit FIFO buffer is 120 bits deep.

Having a FIFO buffer that is 120 bits deep is well known in the art.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use a 120 bits deep, FIFO buffer that transmits/receives in Smith's et al. interface device.

The motivation to combine would have been to facilitate and match the throughput of transmission data rates between devices and other components.

In claim 15, Smith et al. teaches of a communications reconciliation sub-layer (see figure 5, block 102), but does not expressly disclose that the first transmission medium is a universal serial bus.

Official notice is taken that the first transmission medium could be a universal serial bus is well known in the art.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use a universal serial bus in Smith's et al. interface device.

The motivation to combine would have been to facilitate and match the throughput of transmission data rates between devices and other components.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See for 892.

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ABDULLAH RIYAMI whose telephone number is (571)270-3119. The examiner can normally be reached on Monday through Thursday 8am-5pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Aung Moe can be reached on (571) 272-7314. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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